

REMARKS

This application has been carefully reviewed in light of the Office Action dated March 17, 2011. Claims 1 to 4, 6 to 8, 11, 12 and 14 are pending in the application, of which Claims 1, 11, 14 and are independent. Claims 9, 13 and 15 have been cancelled herein without prejudice or disclaimer of subject matter. Reconsideration and further examination are respectfully requested.

Claims 1 to 3, 8, 11, 14 and 15 were rejected under 35 U.S.C. § 103(a) over U.S. Patent Publication 2001/0046065 (Furukawa) in view of U.S. Patent 6,134,568 (Tonkin), U.S. Patent Publication 2001/0044868 (Roztocil), and further in view of U.S. Patent 6,239,800 (Mayhew). Claims 7 and 12 were rejected under 35 U.S.C. § 103(a) over Furukawa in view of Tonkin, Mayhew, Roztocil, and further in view of U.S. Patent Publication 2003/0206314 (Tanimoto). Claim 6 was rejected under 35 U.S.C. § 103(a) over Furukawa, Tonkin, Roztocil, Mayhew, and further in view of U.S. Patent 6,128,451 (Fukuchi). Reconsideration and withdrawal of the rejections are respectfully requested, as discussed below.

Independent Claim 1 is directed to a printing control apparatus which is connectable to a plurality of devices via a network. The printing control apparatus includes an acquisition unit configured to acquire an attribute of a printing job to be processed, and a determination unit configured to determine a device combination capable of executing the job based on performance information representing performance of each of the plurality of devices and the acquired attribute of the job. The device combination

includes a first device and a second device which executes a process using a print product printed by the first device.

According to one feature, a display unit of the printing control apparatus is configured to display a process flow list representing a process flow to execute the job by using the device combinations determined by the determination unit. The process flow list is a list in which display areas of a plurality of procedures which constitute the job are listed in the order of execution. The plurality of procedures include a process procedure to be performed by the first device, a work procedure in which a user moves the print product printed by the first device from the first device to the second device, and a process procedure to be performed by the second device.

According to another feature, a receiving unit of the printing control apparatus is configured to receive, via the network, information indicating that the first device has completed the process procedure to be performed by the first device. In a case where the receiving unit receives the information, the display unit changes a display form of a display area of the procedure which is to be performed by the second device, among the plurality of procedures in the process flow list.

By virtue of these features, a user can ordinarily check the progress of a process procedure to be performed by either the first device or the second device from the printing control apparatus. In addition, when the first device has completed its process procedure, a user can ordinarily understand the process procedure to be performed next from the changed display form of the display area of the process procedure to be performed by the second device.

Independent Claims 11 and 14 are directed to a method and computer-readable medium, respectively, which substantially correspond to the apparatus of Claim 1.

Applicants respectfully submit that the applied art does not disclose or suggest the features of the independent claims, and in particular, does not disclose or suggest at least the features of (i) a printing control apparatus displaying a process flow list in which display areas of a plurality of procedures which constitute a job are listed in the order of execution, the plurality of procedures including a process procedure to be performed by a first device, a work procedure in which a user moves a print product printed by the first device from the first device to the second device, and a process procedure to be performed by the second device, and (ii) receiving, via a network, information indicating that the first device has completed the process procedure to be performed by the first device, and changing a display form of a display area of the process procedure which is to be performed by the second device in a case where the information is received.

In contrast to the present claims, Furukawa merely describes a host computer 1 that searches network printers for one or more network printers which satisfy conditions required to print specific print data. The host computer generates an information list 10 including locations and speeds of available printers. The information list 10 is displayed and a user can select one or more desired printers to execute printing using the print data. As clearly described in Paragraph [0097] of Furukawa, the selected printers execute the same procedure in parallel. However, the manner in which the printers are displayed is not related at all to an execution order, nor is the manner of display related to the use of combined devices in order to complete a job as featured in the present claims.

Accordingly, Furukawa is not seen to disclose or to suggest features (i) and (ii) above.

Tonkin is seen to disclose a computer system 150 displaying a preview display of a document to be printed. As shown in Figure 5F of Tonkin, a document composition portion of editing window 310 provides list 326 of document components, such as a front cover or a tab, that have been designated for inclusion within a document. However, none of the document components in list 326 are seen to disclose or to suggest a process procedure performed by a first device, and a work procedure in which a user moves a print product printed by the first device from the first device to a second device. Accordingly, Tonkin is not seen to disclose or to suggest feature (i) above.

Furthermore, Tonkin is also not seen to disclose or to suggest (ii) receiving, via a network, information indicating that a first device has completed a process procedure to be performed by the first device, and changing a display form of a display area of a process procedure which is to be performed by a second device in a case where the information is received.

Roztocil is seen to disclose a production output device that signals an operator if a manual intervention is required to execute unsupported page features. For example, as described in paragraph [0045] of Roztocil, for page features which production output device 122 cannot handle, device 122 signals an operator that manual intervention is required and the operator is directed through the appropriate steps to implement the page feature and complete the job. As noted in paragraph [0045], this may include instructing the operator to remove partially finished documents and transfer them to a binding

machine for finishing or instructing the operator to load a specific media type or tab stock into production output device 122.

However, such signaling or instructing in Roztocil comes from production output device 122 itself, and not from a printing control apparatus which manages a job executed by production output device 122 and a second production output device.

Accordingly, Roztocil is not seen to disclose or to suggest (i) a printing control apparatus displaying a process flow list in which display areas of a plurality of procedures which constitute a job are listed in the order of execution, the plurality of procedures including a process procedure to be performed by a first device, a work procedure in which a user moves a print product printed by the first device from the first device to the second device, and a process procedure to be performed by the second device.

Moreover, production output device 122 of Roztocil is not seen to detect if a process procedure performed by a different production output device has been completed. Thus, Roztocil is not seen to disclose or to suggest (ii) receiving, via a network, information indicating that a first device has completed a process procedure to be performed by the first device, and changing a display form of a display area of a process procedure which is to be performed by a second device in a case where the information is received.

Mayhew is seen to disclose displaying flowcharts which enable a user at a user computer to install a database system on a mainframe computer. The flowcharts include names of jobs which are required to be accomplished during the installation process, and graphical icons which provide an indication of each job's execution status.

See Mayhew, column 3, lines 2 to 10.

However, the flowcharts in Mayhew do not include a process procedure to be performed by a first device, a work procedure in which a user moves a print product printed by the first device from the first device to the second device, and a process procedure to be performed by the second device. Accordingly, Mayhew is not seen to disclose or to suggest (i) a printing control apparatus displaying a process flow list in which display areas of a plurality of procedures which constitute a job are listed in the order of execution, the plurality of procedures including a process procedure to be performed by a first device, a work procedure in which a user moves a print product printed by the first device from the first device to the second device, and a process procedure to be performed by the second device.

In addition, the flowcharts in Mayhew are only seen to include jobs involving mainframe computer 12, and not multiple devices. Mayhew is not seen to disclose or to suggest (ii) receiving, via a network, information indicating that a first device has completed a process procedure to be performed by the first device, and changing a display form of a display area of a process procedure which is to be performed by a second device in a case where the information is received.

Tanimoto and Fukuchi have been reviewed, but are not seen to compensate for the above-noted deficiencies of Furukawa, Tonkin, Roztocil and Mayhew.

In view of the foregoing amendments and remarks, it is respectfully submitted that independent Claims 1, 11 and 14 are allowable over the applied art.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of

the invention, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.